

CLAIMS:

1. A synthetic resin bottle with a handle, which comprises a
biaxially drawn and blow-molded bottle (1) made of a polyethylene
5 terephthalate resin and a handle (10), which is an injection-molded product
made of a synthetic resin and is fitted firmly to the bottle as an insert, with
said bottle (1) having a recession (3) that has been caved in at the rear of body
(2) and also comprising a vertical projecting wall (5) disposed in the central
10 part of the bottom of said recession (3), and said handle comprising a pair of
fitting beams (12) disposed in parallel to each other in the standing position
and a grip plate (11) integrally disposed to connect between the pair of said
fitting beams (12) at both the upper and lower ends thereof,
wherein embedded ridges (17) are disposed broadly in the direction of central
axis of the preform at the positions where said embedded ridges (17) stem
15 from the pair of the fitting beams (12) and extend from the base toward the
front end face while expanding in width, so that the front end faces are
opposed to the periphery of the preform under the condition that the handle
(10) is set inside the blow-molding tool, and
wherein a part of said fitting beams (12) and embedded ridges (17) constitute
20 the handle inserts that are fitted to the recession bottom (4) on both sides of
the vertical projecting wall (5) of the bottle (1).

2. The synthetic resin bottle with a handle, according to Claim 1,
wherein said embedded ridges (17) are located near a corner set by outer end
25 face (13) and opposed side (14a) of each fitting beam(12), with the cross-section
of said embedded ridge (17) having the shape of a roughly right-angled triangle
formed by one side of the right angle extending roughly perpendicular
direction from said opposed side (14a) and the other side of the right angle
extending roughly perpendicular direction from said outer end face (13).

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3. The synthetic resin bottle with a handle according to Claim 2
wherein the cross-section of said embedded ridges (17) is in the shape of a
roughly right-angled triangle, with the hypotenuse thereof forming a gentle
arc.

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4. The synthetic resin bottle with a handle according to Claim 1, 2,
or 3 wherein said embedded ridges (17) have a two-peak configuration.

5. The synthetic resin bottle with a handle according to Claim 1, 2, 3,
40 or 4, wherein the embedded ridges (17) have smooth rounded surfaces.

6. The synthetic resin bottle with a handle, according to Claim 1, 2, 3, 4, or 5, wherein the handle (10) is made of a polyethylene terephthalate resin.

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7. The synthetic resin bottle with a handle according to Claim 6 wherein many lateral, narrow grooves (25) are notched in the outer surfaces of said embedded ridges (17).

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8. The synthetic resin bottle with a handle according to Claim 6 or 7, wherein almost entire surfaces of the inserts of the handle (10) have been roughened where the handle (10) comes in contact with the bottle (1).

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9. The synthetic resin bottle with a handle according to Claim 6, 7, or 8 wherein said handle (10) comprises a pair of fitting beams (12) disposed in parallel to each other in the standing position, connecting arms (12a) that are bent and connected to the upper and lower ends of said fitting beams (12), and a grip plate (11) integrally disposed to connect between the pair of said fitting beams (12) through the intermediary of said connecting arms (12a), and wherein said connecting arms (12a), a part of said fitting beams (12), and embedded ridges constitute the handle inserts that are fitted to the recession bottom (4) on both sides of the vertical projecting wall (5) of the bottle (1) under the condition that said connecting arms (12a) have portions covered with smooth surfaces that come in contact with the bottle (1).

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10. The synthetic resin bottle with a handle, according to Claim 9, wherein smooth surfaces of the connecting arms (12a) are limited to a portion thereof.